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## (54) Training bench

(57) The bench comprises a horizontal padded surface (11), one part (12) of which can be pivoted upwards about a transverse horizontal axis in relation to a floor standing frame (13), the frame being at each side of one end of the bench a vertical axis tube (14) with an open upper end acting as a vertical pivot for a depending tube (15) of an adjustable fitting (16). The tube (15) is open at its upper end (17) and is connected by a horizontal bar (18) with a square vertical tube (19) having a foot (21) at its lower end and an open upper end (22) for receiving any one of a number of attachments.

The attachment (23) consists of a

leg (24) which fits into the tube (19) and carries a cradle (25). The two cradles (25) support a long bar (26) carrying weights (27) for use during exercising.

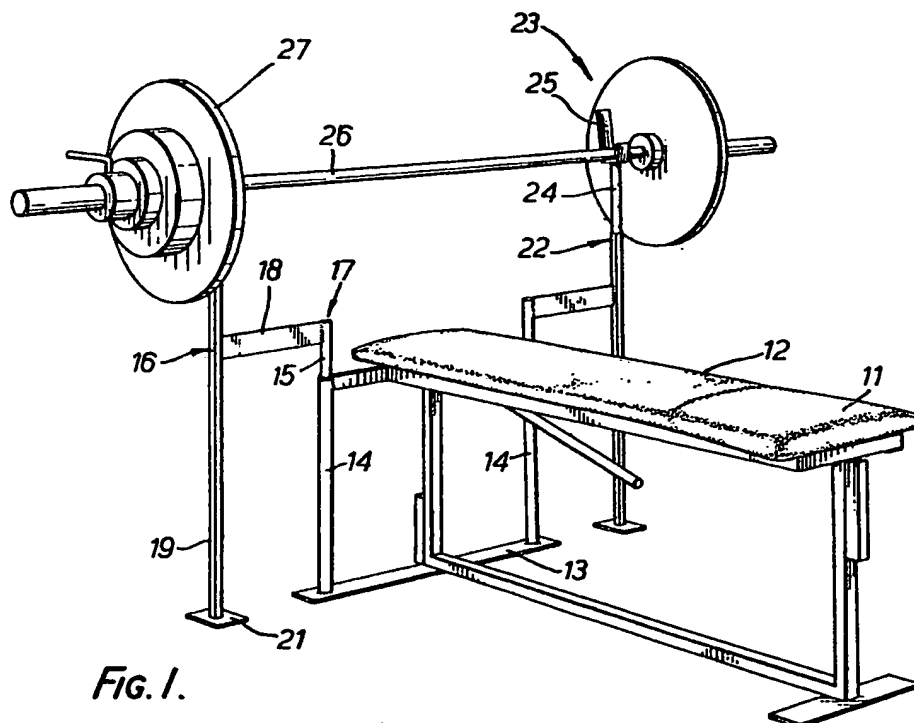
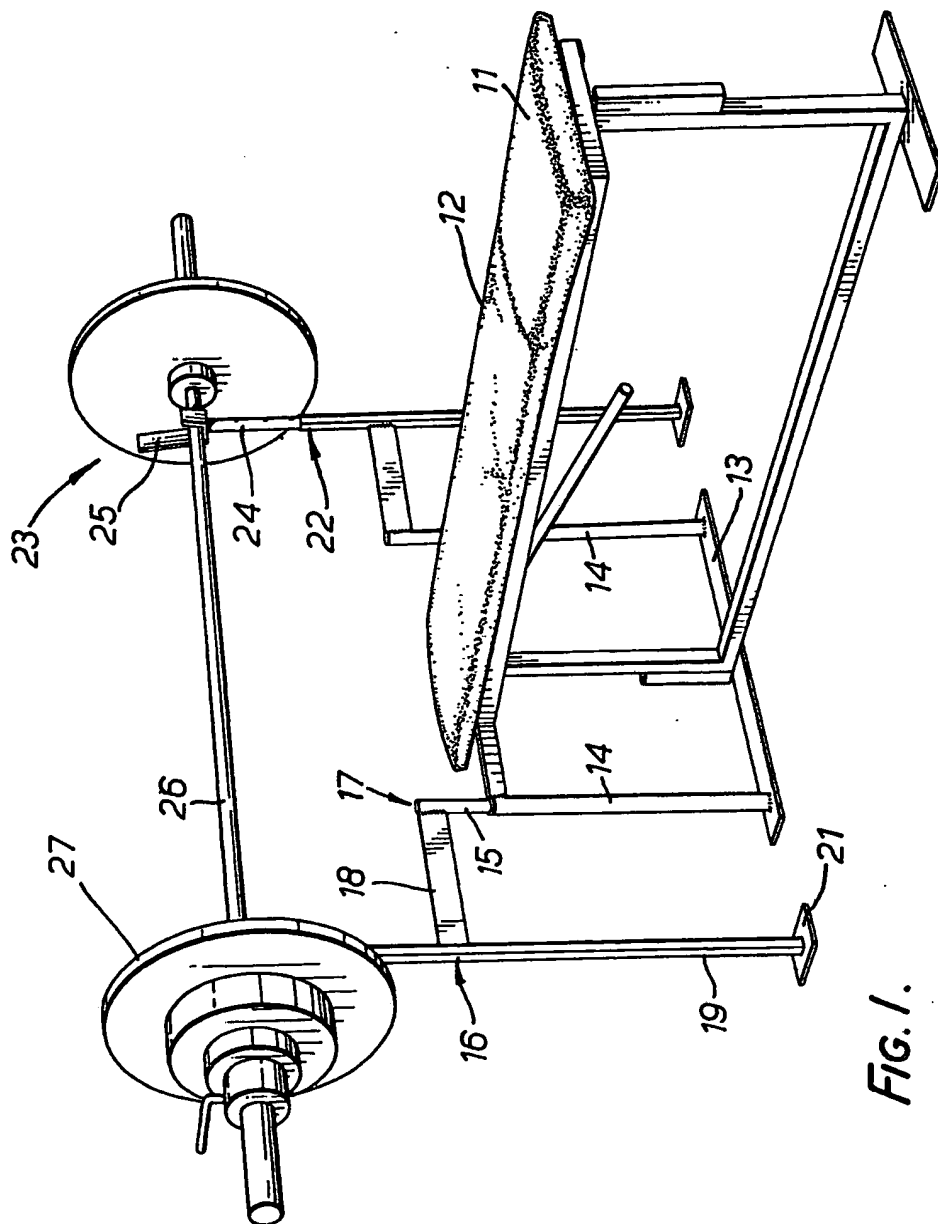


Fig. 1.

The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

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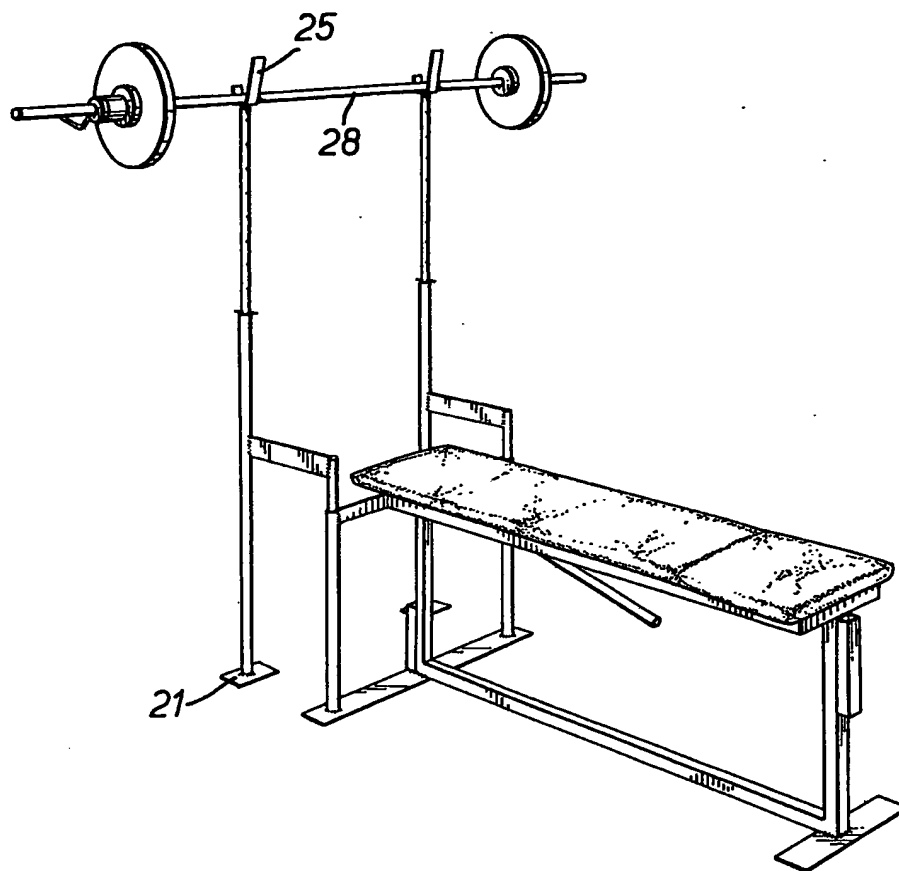


FIG. 2.

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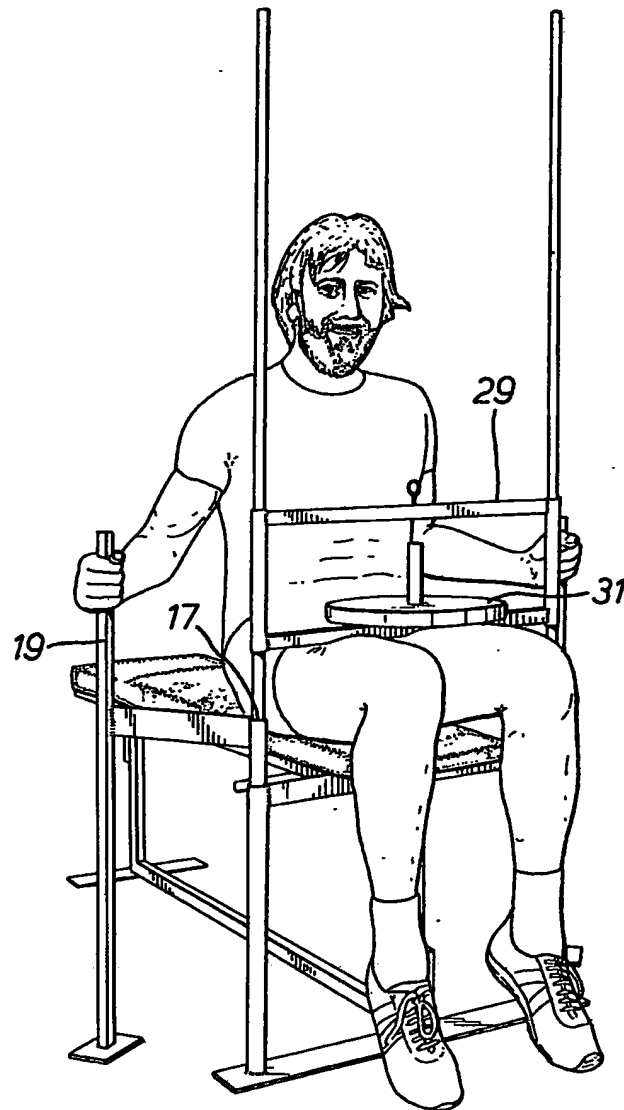


FIG. 3

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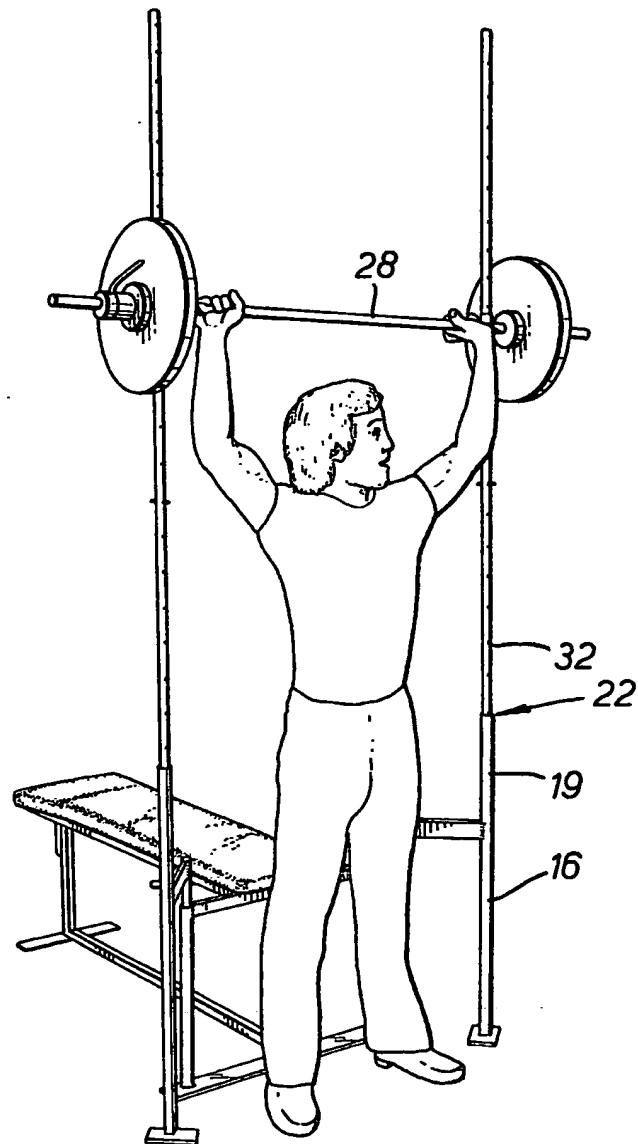


FIG. 4.

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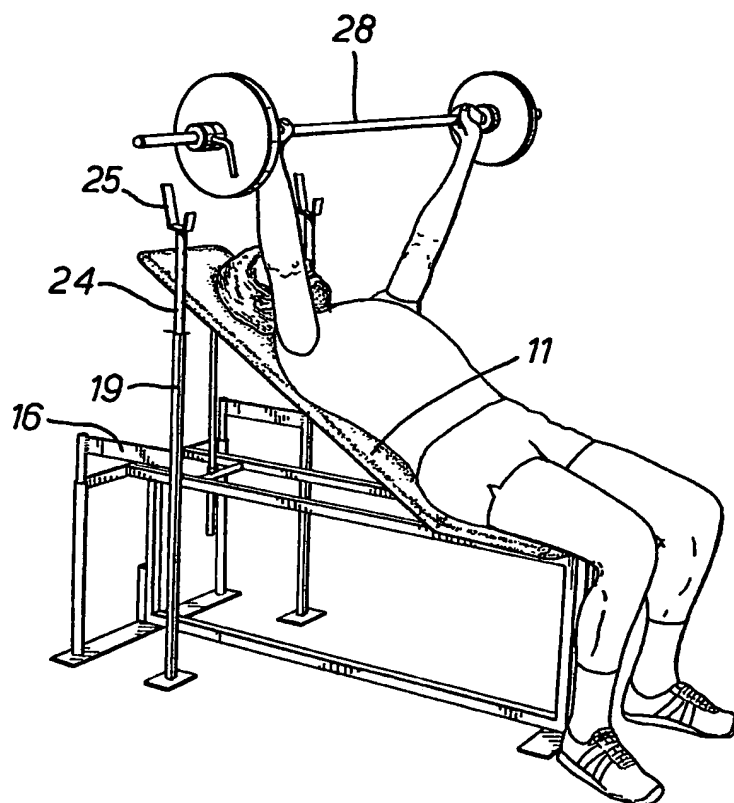


FIG. 5.

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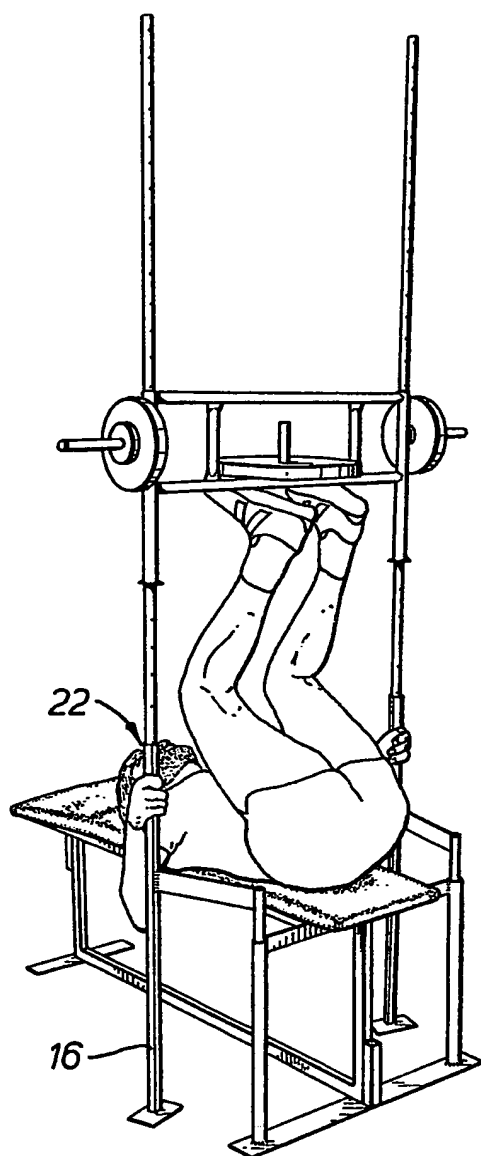


FIG. 6.

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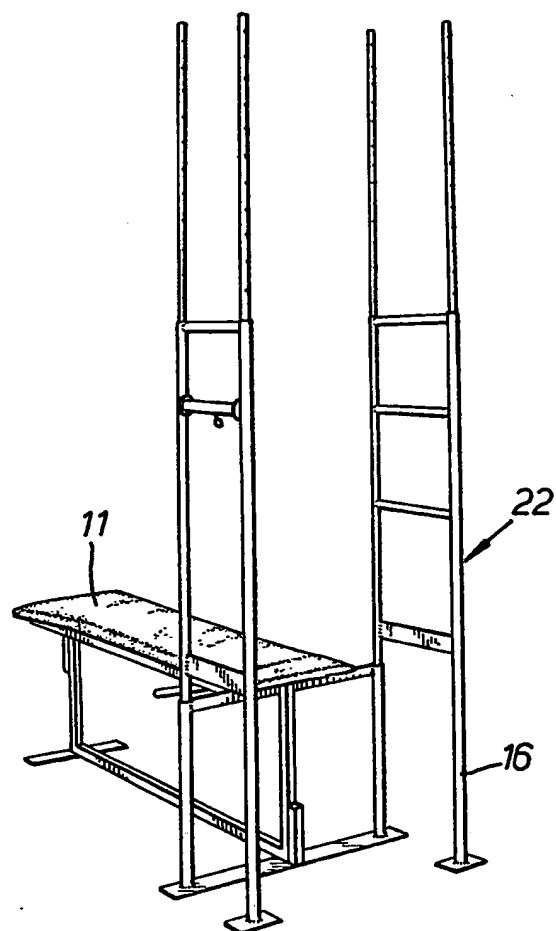


FIG. 7.



## SPECIFICATION

## Training bench

- 5 This invention relates to a training bench and one object is to provide a novel construction enabling a single bench to be easily used with a large number of different attachments so that many different exercises can be performed on it.

10 According to the present invention a training bench has pivotally mounted a vertical axis at one end at least one fitting with a foot and means for supporting a selected one of a number of attachments. Preferably there are two fittings one at each side of the bench at the one end.

15 In a preferred construction the vertical pivot axis is defined by a vertical axis tube with an open upper end at each side of one end of the training bench.

20 Then the fitting can have a pair of horizontally spaced vertical axis tubes joined by a horizontal member one of which has a depending portion fitting into or around the vertical axis tube on the training bench while the other has a foot at its lower end for resting on the floor. Both vertical members can have open upper ends to receive one or other of a number of attachments. The fitting can be pivoted about the vertical axis so that the foot is anywhere on a horizontal circle centred on the axis to suit the particular attachment which is being used and the particular exercise being attempted. There will thus be a very wide range of different positions for the various attachments and that enables a very wide range of exercises to be performed as will be clear from the following description of one preferred embodiment of the invention which is described by way of example with reference to the accompanying drawings in which:-

25 *Figure 1* is a perspective view of a training bench with two fittings at one end carrying a power bench fitting; and

30 *Figures 2 to 7* are sketches showing alternative attachments.

35 In the arrangement of *Fig. 1* the bench is generally conventional with a horizontal padded surface 11 one part 12 of which can be pivoted upwards about a transverse horizontal axis in relation to a floor standing frame 13.

40 At each side of one end of the bench the frame 13 is defined by a vertical axis tube 14 with an open upper end acting as a vertical pivot for a depending tube 15 of an adjustable fitting 16. The fitting 16 has a depending tube 15 which is open at its upper end 17 and is connected by a horizontal bar 18 with a square vertical tube 19 having a foot 21 at its lower end and an open upper end 22 for receiving any one of a number of attachments.

Each fitting 16 can be easily pivoted about the vertical axis so that the foot 21 can rest on the floor in any position of a circle centred on the vertical axis.

- 70 In *Fig. 1* two fittings are used one at each side of the bench and the two feet 21 are in line with that end of the bench one on either side.

An attachment 23 consists of a leg 24 which fits in the tube 19 and carries a cradle 25. The two cradles 25 support a long bar 26 carrying weights 27 for use during exercising.

75 *Fig. 2* shows how the two fittings can be turned so that the feet 21 are as far as possible from the other end of the bench and then the cradles 25 can carry a shorter bar 28 for use as a squab stand.

80 *Fig. 3* shows fittings swung back towards the remote end of the bench at an angle of about 45° with a seated calf raiser 29 fitted the upper ends 17 of the two fittings in line with the vertical axes. The user holds the upper ends of the square tubes 19 and the calf raiser with a weight 31 rests on his thighs to enable him to do calf raising exercises.

85 *Fig. 4* shows how the fittings are swung round to extend away from the training bench at an angle of about 45° with the upper ends of the square tubes 19 carrying the elements 32 of a power rack. The user can stand beyond the end of the training bench underneath the bar 28 of the power rack direct lifting exercises. In *Fig. 5* the user lies on the partly raised surface 11 exercising with a weight bar above his head. In that case the fittings 16 are turned to be facing the free end of the bench and the square tubes 19 carry legs 24 and cradles 25 for supporting the bar 28.

90 In *Fig. 6* the fittings 16 are in the same positions as in *Fig. 3* but the elements of a leg press are in this case fitted in the open upper ends 22 of the square tubes 19 so that the user can hold the upper ends of the tubes 19 and exercise with his feet against the leg press.

95 Finally *Fig. 7* shows how with the fittings in the same positions as shown in *Fig. 2* a dipping bar and wrist roller can be attached to one fitting and another rack attached to the other fitting for a range of exercises with the user either standing at one end of the bench or sitting at that one end between the two attachments or lying with his head near that one end and using those two attachments.

100 It will be appreciated that the arrangements shown in *Figs. 1 to 7* are mere examples of many ways in which a single training bench can be used for a wide range of different exercises by use of the vertically pivoted fittings 16 and a selected number of attachments for use with them.

## CLAIMS

- 130 1. A training bench including at least one

fitting pivotally mounted about a generally vertical axis at one end of the bench, in which the fitting has a supporting foot and includes means for supporting a number of attachments.

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2. A training bench as claimed in Claim 1 in which there are two fittings, one at each side of the bench at one end.

10 3. A training bench as claimed in Claim 2 including a bar for carrying weights, extending between and being supported by the two fittings.

15 4. A training bench as claimed in Claim 1 2 or 3 in which the, or each, pivot axis is defined by an upwardly extending tube with an open upper end.

20 5. A training bench as claimed in Claim 4 in which the, or each, fitting comprises a pair of spaced generally vertical tubes joined by a generally horizontal member, one of which has a depending portion fitting into, or around, the upwardly extending tube on the training bench, the other of which has the supporting foot on its lower end.

25 6. A training bench as claimed in Claim 5 in which either, or each, of the upper ends of the spaced generally vertical tubes is open for receiving the means for supporting a number of attachments.

30 7. A training bench as claimed in any preceding claim including a pivotally mounted supporting surface for supporting the user in which the angle of inclination of the supporting surface can be varied.

35 8. A training bench constructed and arranged substantially as herein specifically described with reference to the accompanying drawings.

40 CLAIM (3 Jul 1981)

1. A training bench including at least one fitting mounted at one end of the bench to be capable of movement about a generally vertical axis to extend in a selected one of a  
45 number of different horizontal directions from a generally vertical axis of the bench in which the fitting has a supporting foot and includes means for supporting a number of attachments.